

Installation Guide

ECtemp 532

Electronic Thermostat



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1 Introduction


ECtemp 532 is an electronic thermostat provided with a 2-pole switch, a room sensor to control the room temperature, and an additional floor sensor to limit the maximum floor temperature. It can be either flush-mounted or surface-mounted.

The thermostat has a button for adjusting the temperature setting with a scale from (→~~⊗~~←) 5-35°C. Furthermore, it has a LED indicator showing standby periods (green light) and heating periods (red light).

More information on this product can also be found at:
ectemp.danfoss.com

1.1 Technical Specifications

Operation voltage	220-240V~, 50Hz
Standby power consumption	Max 0.25W
Relay: Resistive load Inductive load	Max 15A / 3450W @ 230V cos φ = 0.3 max 1A
Sensing units	NTC 15kOhm at 25°C
Sensing values: 0°C 25°C 50°C	42 kOhm 15 kOhm 6 kOhm
Hysteresis	$\pm 0.4^\circ\text{C}$
Ambient temperature	-10 to +30°C
Frost protection temperature	5°C - ❄
Temperature range	5-35°C room temperature 20-50°C floor temperature limiter - default 35°C
Cable specification max	1x4mm ² or 2x2,5mm ²
Ball pressure temperature	75°C
Pollution degree	2 (domestic use)

Type	1C
Storage temperature	-20 to +65°C
IP class	31
Protection class	Class II - 
Dimensions	85 x 85 x 36mm
Weight	90g

The product complies with the EN/IEC Standard "Automatic electrical controls for household and similar use":

- EN/IEC 60730-1 (general)
- EN/IEC 60730-2-9 (thermostat)

1.2 Safety Instructions

Make sure the mains supply to the thermostat is turned off before installation.

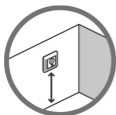
IMPORTANT: When the thermostat is used to control a floor heating element in connection with a wooden floor or similar material, always use a floor sensor and never set the maximum floor temperature to more than 35°C.

Please also note the following:

- The installation of the thermostat must be done by an authorized and qualified installer according to local regulations.
- The thermostat must be connected to a power supply via an all-pole disconnection switch.
- The sensor is to be considered as live voltage. Have this in mind if the sensor must be extended.
- Always connect the thermostat to continuous power supply.
- Do not expose the thermostat to moisture, water, dust, and excessive heat.

2 Mounting Instructions

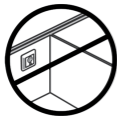
Please observe the following placement guidelines:



Place the thermostat at a suitable height on the wall (typically 80-170cm.).



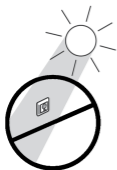
In wet rooms, always place the thermostat according to local regulation on IP classes.



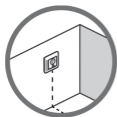
Do not place the thermostat on the inner side of an exterior wall.



Always install the thermostat at least 50 cm. from windows and doors.



Do not place the thermostat in a way that it will be exposed to direct sunlight.

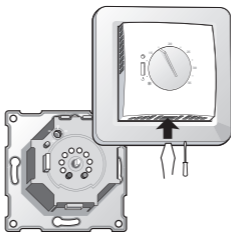


Note: A floor sensor enables a more accurate temperature control and is recommended in all floor heating applications and **mandatory** under wooden floors to reduce the risk of over-heating the floor.

- Place the floor sensor in a conduit in an appropriate place where it is not exposed to sunlight or draft from door openings.
- Equally distant and $>2\text{cm}$ from two heating cables.
- The conduit should be flush with the floor surface - countersink the conduit if necessary.
- Route the conduit to the connection box.
- The bending radius of the conduit must be min 50mm.

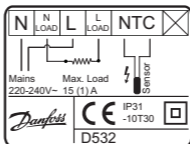
Follow the steps below to mount the thermostat:

1. Open the thermostat:



- Press the release tab in the bottom of the thermostat using a flat object.
- Carefully detach the front cover.
- Carefully detach the frame.

2. Connect the thermostat according to the connection diagram.



The screen of the heating cable must be connected to the earth conductor of the power supply cable by using a separate connector.

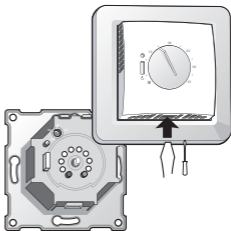
Note: Always install the floor sensor in a conduit in the floor.

3. Set the maximum floor temperature between 20° and 50°C by turning the screw with temperature indications in the upper left corner.
4. Mount and reassemble the thermostat:
 - Fasten the thermostat to a flush-mounting box or a surface-mounting box by driving the screws through the holes in each side of the thermostat.
 - Install the frame and front cover in the reverse order of disassembly.
5. Turn on the power supply.

3 Settings

How to change the minimum and maximum floor temperatures

1. Remove the adjustment button.
2. Move the pins to the desired positions.
3. Put the adjustment button back in place.



Note Please be aware of the following:

- The floor temperature is measured where the floor sensor is placed.
- The temperature of the bottom of a wooden floor can be up to 10 degrees higher than the top.
- Floor manufactures often specify the max temperature on the top surface of the floor (usually 27-28°C).
- By default, the maximum floor temperature is set to 35°C.
- Always use a floor sensor or a room + floor sensor combination to control floor heating. Without a floor sensor, the temperature control may be less accurate and you risk overheating the floor.

Thermal resistance [m ² K/W]	Examples of flooring	Details	Approximate setting for 25°C floor temperature
0.05	8 mm HDF based laminate	> 800 kg/m ³	28°C
0.10	14 mm beech parquet	650 - 800 kg/m ³	31°C
0.13	22 mm solid oak plank	> 800 kg/m ³	32°C
< 0.17	Max. carpet thickness suitable for floor heating	acc. to EN 1307	34°C
0.18	22 mm solid fir planks	450 - 650 kg/m ³	35°C

4 Warranty



5 Disposal Instruction



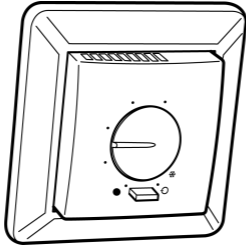
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ECtemp 532 ELKO

088L0035

Thermostat
Floor/Room Sensor
220-240V~
50-60Hz~
+5 to +35°C
15A/3450W@230V~
IP 31



Product Documentation

Designed in Denmark for Danfoss A/S

